

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for embedding message data in ~~a digital image~~ an image sequence having two or more frames, comprising the steps of:

a) providing a dispersed message image representative of the message data; ~~[[and]]~~

b) producing a cyclically shifted version of the dispersed message image corresponding to a spatial offset;

~~[[b)]]~~ c) combining ~~spatially shifted versions~~ the cyclically shifted version of the dispersed message image with ~~successive frames~~ a frame of the ~~digital~~ image sequence; and

d) repeating steps b) and c) for one or more additional frames of the image sequence.

2. (Currently Amended) The method claimed in claim 1, wherein the step of ~~providing a~~ producing a cyclically shifted version of the dispersed message image includes the steps of:

a1) producing a message image representing the message data;

a2) providing a carrier image; ~~[[and]]~~

a3) convolving the message image with the carrier image to ~~produce the~~ produce a dispersed message image; and

a4) cyclically shifting the dispersed message image by a spatial offset to produce a cyclically shifted version of the dispersed message image.

3. (Currently Amended) The method claimed in claim 1, wherein the ~~spatially~~ cyclically shifted dispersed message images are not visible when added to the frames of the ~~digital~~ image sequence.

4. (Original) The method claimed in claim 2, wherein the carrier image has random phase and substantially flat Fourier amplitude.

Claim 5, 6 and 7. (Canceled)

8. (Currently Amended) The method claimed in claim 1 wherein the ~~spatially~~ cyclically shifted versions of the dispersed message image are shifted randomly for successive frames.

Claims 9 and 10. (Canceled)

11. (Currently Amended) The method claimed in claim 1, further comprising the steps of:

[[c)]] e) determining the spatial shift ~~applied~~ corresponding to each ~~spatially~~ cyclically shifted version of the dispersed message image in a plurality of frames; [[and]]

[[d)]] f) aligning ~~a plurality~~ the plurality of frames based on the determined ~~shift applied~~ spatial shifts corresponding to the respective dispersed message images and ~~averaging~~ combining the aligned frames to produce ~~an average~~ a combined frame; and

[[e)]] g) extracting the message image from the ~~averaged~~ combined frame.

12. (Currently Amended) The method claimed in claim 2, further comprising the steps of:

[[c)]] e) determining the spatial shift ~~applied~~ corresponding to each ~~spatially~~ cyclically shifted version of the dispersed message image in a plurality of frames; [[and]]

[[d)]] f) aligning ~~a plurality~~ the plurality of frames based on the determined ~~shift applied~~ spatial shifts corresponding to the respective dispersed message images and ~~averaging~~ combining the aligned frames to produce ~~an average~~ a combined frame; and

[[e)]] g) extracting the message image from the ~~averaged~~ combined frame by correlating the carrier image with the ~~averaged~~ combined frame.

13. (Currently Amended) A system for embedding message data in ~~a digital image~~ an image sequence having two or more frames, comprising:

a) means for providing a dispersed message image representative of the message data; ~~[[and]]~~

b) means for producing a cyclically shifted version of the dispersed message image corresponding to a spatial offset;

~~[[b)]]~~ c) means for combining ~~spatially shifted versions~~ the cyclically shifted version of the dispersed message image with successive frames a frame of the ~~digital~~ image sequence; and

d) means for repeating initiating repetition of the means for producing and means for combining.

14. (Currently Amended) The system claimed in claim 13, wherein the means for ~~providing a~~ producing a cyclically shifted version of the dispersed message data image includes:

a1) means for producing a message image representing the message data;

a2) means for providing a carrier image; ~~[[and]]~~

a3) means for convolving the message image with the carrier image to produce the dispersed message image; and

a4) means for cyclically shifting the dispersed message image by a spatial offset to produce a cyclically shifted version of the dispersed message image.

15. (Currently Amended) The system claimed in claim 13, wherein the ~~spatially~~ cyclically shifted versions of the dispersed message image are not visible when added to the frames of the ~~digital~~ image sequence.

16. (Original) The system claimed in claim 14, wherein the carrier image has random phase and substantially flat Fourier amplitude.

Claims 17, 18 and 19. (Canceled)

20. (Currently Amended) The system claimed in claim 13 wherein the means for ~~spatially~~ cyclically shifting the dispersed message image employs random spatial shifts.

Claims 21 and 22. (Canceled)

23. (Currently Amended) The system claimed in claim 13, further comprises:

[[c)] e) means for determining the spatial shift ~~applied~~ corresponding to each ~~spatially~~ cyclically shifted version of the dispersed message image in a plurality of frames; [[and]]

[[d)] f) means for aligning ~~a plurality~~ the plurality of frames based on the determined shift applied spatial shifts corresponding to the respective dispersed message images and averaging combining the aligned frames to produce ~~an average~~ a combined frame; and

[[e)] g) means for extracting the message image from the ~~averaged~~ combined frame.

24. (Currently Amended) The system claimed in claim 14, further comprises:

[[c)] e) means for determining the spatial shift ~~applied~~ corresponding to each ~~spatially~~ cyclically shifted version of the dispersed message image in a plurality of frames; [[and]]

[[d)] f) means for aligning ~~a plurality~~ the plurality of frames based on the determined ~~shift applied~~ spatial shifts corresponding to the respective dispersed message images and averaging combining the aligned frames to produce ~~an average~~ a combined frame; and

[[e)] g) means for extracting the message image from the ~~averaged~~ combined frame by correlating the carrier image with the ~~averaged~~ combined frame.

Claims 25 and 26. (Canceled)

27. (New) The method claimed in claim 1, wherein the step of producing a cyclically shifted version of the dispersed message image includes the steps of:

- a1) producing a message image representing the message data;
- a2) cyclically shifting the message image by a spatial offset to produce a cyclically shifted message image;
- a3) providing a carrier image; and
- a4) convolving the cyclically shifted message image with the carrier image to produce a cyclically shifted version of the dispersed message image.

28. (New) The method claimed in claim 1, wherein the step of producing a cyclically shifted version of the dispersed message image includes the steps of:

- a1) producing a message image representing the message data;
- a2) providing a carrier image;
- a3) cyclically shifting the carrier image by a spatial offset to produce a cyclically shifted carrier image; and
- a4) convolving the message image with the cyclically shifted carrier image to produce a cyclically shifted version of the dispersed message image.